

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Allen et al.**

Serial No. 10/798.937

**Filed: March 11, 2004**

# For: Systems and Methods for User-Constructed Hierarchical Interest Profiles and Information Retrieval Using Same

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Group Art Unit: 2168

**Examiner: Oni, Olubusola**

**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

35525  
PATENT TRADEMARK OFFICE  
CUSTOMER NUMBER

**APPEAL BRIEF (37 C.F.R. 41.37)**

This brief is in furtherance of the Notice of Appeal, filed in this case on February 20, 2007.

A fee of \$500.00 is required for filing an Appeal Brief. Please charge this fee to IBM Corporation Deposit Account No. 09-0447. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

### **REAL PARTY IN INTEREST**

The real party in interest in this appeal is the following party: International Business Machines Corporation of Armonk, New York.

### **RELATED APPEALS AND INTERFERENCES**

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

## **STATUS OF CLAIMS**

### **A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application are: 1-23

### **B. STATUS OF ALL THE CLAIMS IN APPLICATION**

1. Claims canceled: 5, 12, 13 and 19
2. Claims withdrawn from consideration but not canceled: none
3. Claims pending: 1-4, 6-11, 14-18 and 20-23
4. Claims allowed: none
5. Claims rejected: 1-4, 6-11, 14-18 and 20-23
6. Claims objected to: none

### **C. CLAIMS ON APPEAL**

The claims on appeal are: 1-4, 6-11, 14-18 and 20-23

### **STATUS OF AMENDMENTS**

No amendment after final was filed for this case.

## **SUMMARY OF CLAIMED SUBJECT MATTER**

### **A. CLAIM 1 - INDEPENDENT**

Claim 1 is directed to a method of delivering a webpage. A hierarchical data set of interests (Figure 2, element 200) identified by a user is received, and is stored in a database entry associated with the user (Specification page 9, line 11- page 10, line 2; Figure 4, block 402). This hierarchical data set is parsed to extract one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value (Specification page 10, lines 3-6 and page 10, line 23 – page 11, line 4; Figure 4, blocks 406 and 408). The extracted keyword values are applied to filter content for delivery to the user (Specification page 10, lines 6-8; Figure 4, block 408). A webpage that is personalized for the user is delivered according to the identified interests (Specification page 10, line 9 – page 11, line 14; Figure 5, all blocks).

### **B. CLAIM 8 - INDEPENDENT**

Claim 8 is directed to a computer program product embodied in a machine-readable medium for delivering a webpage. The computer program produce comprises programming instructions for receiving a hierarchical data set of interests (Figure 2, element 200) identified by a user, and storing the hierarchical data set of interests in a database entry associated with the user (Specification page 9, line 11- page 10, line 2; Figure 4, block 402). Also included are instructions for parsing the hierarchical data set, and extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value (Specification page 10, lines 3-6 and page 10, line 23 – page 11, line 4; Figure 4, blocks 406 and 408). Also included are instructions for applying extracted keyword values to filter content for delivery to a the user, and delivering a webpage that is personalized for the user according to the identified interests (Specification page 10, line 6 – page 11, line 14; Figure 4, block 408; Figure 5, all blocks).

### **C. CLAIM 15 - INDEPENDENT**

Claim 15 is directed to a data processing system for delivering a webpage. The data processing system includes circuitry operable for receiving a hierarchical data set of interests (Figure 2, element 200) identified by a user and for storing the hierarchical data set of interests in a database entry associated with the user (Specification page 9, line 11- page 10, line 2; Figure 4, block 402; Figure 6, element 600). The data processing system also includes circuitry operable for parsing the hierarchical data set, and for extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-s elected granularity value (Specification page 10, lines 3-6 and page 10, line 23 – page 11, line 4; Figure 4, blocks 406 and 408; Figure 6, element 600). The data processing system also includes circuitry operable for applying extracted keyword values to filter content for delivery to the user and for delivering a webpage that is personalized for the user according to the identified interests (Specification page 10, line 6 – page 11, line 14; Figure 4, block 408; Figure 5, all blocks; Figure 6, element 600).

## **GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to review on appeal are as follows:

1. Whether Claims 1, 3, 4, 6-8, 10, 11, 13-15 and 17-23 are anticipated by Natasa Milic-Frayling (Pub. No. US 20060059138) under 35 U.S.C. § 102 (e); and
2. Whether Claims 2, 9 and 16 are obvious over Natasa Milic-Frayling (Pub. No: US 20060059138) in view of Serbinis et al. (Patent No: US 6,584,466) under 35 U.S.C. § 103.



## ARGUMENT

### A. **GROUND OF REJECTION 1 (Claims 1, 3, 4, 6-8, 10, 11, 13-15 and 17-23)**

Claims 1, 3, 4, 6-8, 10, 11, 13-15 and 17-23 stand rejected under 35 U.S.C. § 102 (e) as being anticipated by Natasa Milic-Frayling (Pub. No. US 20060059138) (hereinafter "*Natasa*").

For a prior art reference to anticipate in terms of 35 U.S.C. 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Appellants will now show that every element recited in Claims 1, 3, 4, 6-8, 10, 11, 13-15, 17, 18 and 20-23 is not identically shown in the cited *Natasa* reference.

#### A.1. **Claims 1, 6, 8, 13, 15 and 20**

The cited *Natasa* reference does not teach the claimed steps of "receiving a hierarchical data set of interests identified by a user" or "storing the hierarchical data set of interests in a database entry associated with the user". As can be seen, a hierarchical data set of interests identified by a user is received, and stored in a database entry associated with the user. In rejecting the claimed 'receiving' step, the Examiner states that this step is taught by *Natasa* paragraphs [0055], [0063] and [0087-0088]. Appellants show that these cited passages state:

"[0055] Similarly, suppose that the user requested an alternative ranking of the search result based on the rich information highlighting facility representation of the user's need (as oppose to the short query that the user may have communicated to the search engine). The document text of some selected documents (e.g., top N ranked documents) could be pre-fetched in the background, linguistically and statistically processed, and **compared with the information highlighting facility 210 model of the user's interest**. The documents would be scored and alternative ranking of them presented to the user." (emphasis added by Appellants)

"[0063] As the documents are downloaded by the browser 217 they are processed by the information highlighting facility 210 **in view of the model of the user's interest**. The results of the information highlighting facility 210 processing are then displayed

appropriately to the user. Information highlighting facility 210 may include a number of different features and supporting analyses comprising but not limited to: marking of terminology in the text, scrolling to the relevant passages in the document, extracting specified entity names and relations among entities in the text, summarizing documents by selecting sentences salient to the content of the document, or related to the query, etc., ranking documents in a designated document set with respect to the information highlighting facility 210 **representation of the user's need**, analyzing hyperlinks in the viewed documents with respect to **the user's need**, and creating various visual representation of the documents, such as thumbnail document images with highlighted information in the document text and hyperlinks to support reading of and browsing through the document text.” (emphasis added by Appellants)

”[0087] In FIG. 6, a flow diagram indicated generally at 610 shows re-ranking of a list of documents provided by a search engine or the documents that are linked to the currently viewed document via hyperlinks. In the search mode, the list of documents is received at 615, and the top N documents referred to as best hits by the search engine are accessed from the respective servers at 620, as a background task while the user may be looking at the list, or performing other tasks. N may range from 2 to as many as resource constraints permit. N is 30 in one embodiment. The entire document, or some number (K) of pages of the document may be used. Each document may then be scored at 625 in its entirety or similarly to the portion scoring as described previously using a relevance matching method. The scoring may be based on the model, including at least augmented search terms and linguistic analysis of the document text. The list of documents is then sorted in accordance with the document scores at 630. An alternative rank of each of the documents can be provided, or a new list of less than N provided. The list is then provided to the user at 635, and control is returned at 640.”

”[0088] In the browsing mode, the list of documents received at 615 represent all the document linked to the currently viewed document. The documents are accessed from the respective servers at 620 in the background and scored at 625 for relevance with respect to **the model of the user's interest that the current document may be associated with**. The resulting score for each linked document is then displayed in

relation to the document link on the current page and serves as a guide for following the links if desired.” (emphasis added by Appellants)

As can be seen, these passages merely make mention of a ‘model’ of the user’s interest. While it may be true that this model is used to facilitate processing of search results, these cited passages do not in fact teach a *hierarchical data set of interests identified by a user*, or the receiving or storing of a *hierarchical data set* of interests identified by a user. Rather, these cited passages merely establish the existence of a *model of the user’s interests*. Therefore, as every element recited in Claim 1 is not identically shown in a single reference, and in particular there is no teachings of a *hierarchical data set* of interests identified by a user or the receiving and storing of such a hierarchical data set, Claim 1 has been erroneously rejected under 35 U.S.C. § 102 (e).

Still further, Claim 1 recites “extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value”. As can be seen, this aspect of Claim 1 is also directed to the claimed hierarchical data set, and in particular this claimed feature is directed to extraction information (one or more keyword attribute values) from such hierarchical data set. In addition, this extracting of keyword attribute values is in response to a *pre-selected granularity value*. In rejecting this extracting step, the Examiner states that such step is taught by *Natasa* at paragraphs [0052-0055] and [0063]. Appellants urge that there, *Natasa* states:

“[0052] As an example of the process flow, if the user desires to have relevant terminology from the information request highlighted in the accessed documents, information highlighting facility 210 processes the request for information using linguistic analysis tools 228 and knowledge resources 229 to create a rich model 232 of the topic of interest. For example, it may perform synonym expansion of the original terms in the information request to ensure that relevant information is highlighted in the document without the need for the user to try to anticipate the linguistic variations in which the topic is described in the text. “

”[0053] As the user accesses a document, **the model of the user's information need is used in the analysis of the document**. For example, terminology highlighting is

achieved by detecting in the document text (e.g., pattern matching) the terminology from the rich linguistic representation of the user's information need created by information highlighting facility 210. **The user can specify various parameters related to terminology highlighting at 223. For example, the user may prefer to have terminology from the original description of the information need highlighted in one color while all the synonyms in some other color. Or, perhaps, the user may want only the occurrence of multi-word phrases from the request highlighted in the document, etc."**

"[0054] Some types of information highlighting facility analysis may require pre-fetching the document text in the background as the user is performing other tasks, e.g., viewing the result list from the search engine. For example, **suppose that the user requested that thumbnail images of documents that were indicated by the search engine be displayed with query terminology highlighted in them.** In that case, the text of documents from the search result page being viewed by the user could be downloaded in the background as represented by communication line 245, analyzed for query terminology and document layout and the highlighted thumbnail images would be displayed."

"[0055] Similarly, suppose that **the user requested an alternative ranking of the search result based on the rich information highlighting facility representation of the user's need** (as oppose to the short query that the user may have communicated to the search engine). The document text of some selected documents (e.g., top N ranked documents) could be pre-fetched in the background, linguistically and statistically processed, and compared with the information highlighting facility 210 model of the user's interest. The documents would be scored and alternative ranking of them presented to the user."

"[0063] As the documents are downloaded by the browser 217 they are processed by the information highlighting facility 210 **in view of the model of the user's interest.** The results of the information highlighting facility 210 processing are then displayed appropriately to the user. Information highlighting facility 210 may include a number of different features and supporting analyses comprising but not limited to: marking of

terminology in the text, scrolling to the relevant passages in the document, extracting specified entity names and relations among entities in the text, summarizing documents by selecting sentences salient to the content of the document, or related to the query, etc., ranking documents in a designated document set with respect to the information highlighting facility 210 representation of the user's need, analyzing hyperlinks in the viewed documents with respect to the user's need, and creating various visual representation of the documents, such as thumbnail document images with highlighted information in the document text and hyperlinks to support reading of and browsing through the document text.”

As can be seen, none of these cited passages teach or make any mention of keyword extraction *from a hierarchical dataset* (of interests identified by a user) in response to the parsing of the data set *and a pre-selected granularity value*. The only extraction that is described by these cited passages of *Natasa* is in paragraph [0063], and *this extracting is not done from a hierarchical dataset of interests identified by a user*, but instead is an extraction done from the *actual results of a search that was performed*. This can be seen as follows:

**“As the documents are downloaded by the browser 217 they are processed by the information highlighting facility 210 in view of the model of the user's interest. The results of the information highlighting facility 210 processing are then displayed appropriately to the user.** Information highlighting facility 210 may include a number of different features and supporting analyses comprising but not limited to: marking of terminology in the text, scrolling to the relevant passages in the document, **extracting specified entity names and relations among entities in the text**, summarizing documents by selecting sentences salient to the content of the document, or related to the query, etc.,

Quite simply, this *Natasa* extraction step is *with respect to the actual search results* that are processed in accordance with the model of the user's interest, whereas the extraction feature of Claim 1 is *with respect to the hierarchical dataset of interests identified by a user*. In addition, this *Natasa* extraction is done according to ‘specified’ entity names and relationships, and is not done in response to a *pre-selected granularity value*, as expressly recited in Claim 1. Therefore, as

every element recited in Claim 1 is not identically shown in a single reference, and in particular there is no teaching of extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value, it is further shown that Claim 1 has been erroneously rejected under 35 U.S.C. § 102 (e).

#### **A.2. Claims 3, 10 and 17**

Appellants initially show error in the rejection of Claim 3 for reasons given above with respect to Claim 1 (of which Claim 3 depends upon).

Still further, Claim 3 recites “pre-populating a Web content search form page using extracted keyword values; and returning the Web content search form page to the user”. In rejecting Claim 3, the Examiner alleges that this claimed feature is taught by *Natasa* at paragraphs [0083-0084] since this passage teaches a user providing a description of their interest through a dialogue box (with the Examiner equating the claimed ‘Web content search form page’ to such dialogue box), and then providing the user with their interest as specified. Appellants respectfully urge error in such interpretation, since Claim 3 recites two different actions occurring with respect to the claimed ‘Web content search form page’ – (1) it is pre-populated and (2) it is returned to the user. The Examiner states that the *Natasa* dialog/search box is equivalent to the claimed ‘Web content search form page’ since a user provides/inputs their interest using such a box. However, this box is not returned to the user. Rather, what is returned to the user are the search results that result from such user input. Thus, this cited passage does not teach the claimed ‘Web content search form page’ that is *both* (1) pre-populated using extracted keywords *and* (2) returned to the user. Rather, *Natasa*’s dialogue is merely described as being used to accept user input. Therefore, as every element recited in Claim 3 is not identically shown in a single reference, and in particular there is no teachings of pre-populating a Web content search form page using extracted keyword values and returning this same Web content search form page to the user, it is further shown that Claim 3 has been erroneously rejected under 35 U.S.C. § 102 (e).

#### **A.3. Claims 4, 11 and 18**

Appellants initially show error in the rejection of Claim 4 for reasons given above with respect to Claim 3 (of which Claim 4 depends upon).

Still further, Claim 4 recites “receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search”. As can be seen, the form is received from the user, and *this form that is received from the user* includes (i) pre-populated data and (ii) at least one Boolean search indicator for determining the combination of search terms. In rejecting Claim 4, the Examiner alleges that these claimed features recited in Claim 4 are taught by *Natasa* at paragraphs [0059] and [0083-0084] since *Natasa* teaches ‘a search engine or search window or box for searching based on users search terms or based on user interest’. It is respectfully submitted that this search engine/window/box is not received from the user (Claim 4 recites “receiving the Web content search form from the user”). Rather, it is the actual *user input* using such a box that is received. Still further, it is respectfully submitted that this search engine/window/box does not include at least one Boolean search indicator (Claim 4 recites “*the received search form includes* one or more pre-populated data, zero or more additional user-supplied search terms and *at least one Boolean search indicator* for determining the combination of search terms for performing a search”). While *Natasa* may inherently perform Boolean operations – which in effect is the extent of the Examiner’s assertion in rejecting this Boolean aspect of Claim 4<sup>1</sup> – such performance of Boolean operations does not establish any teaching or suggestion that *a Web content search form that is received from a user* includes any type of Boolean search indicator. Therefore, as every element recited in Claim 4 is not identically shown in a single reference, and in particular there is no teachings of receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data and at least one Boolean search indicator for determining the combination of search terms for performing a search, it is further shown that Claim 4 has been erroneously rejected under 35 U.S.C. § 102 (e).

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<sup>1</sup> In rejecting this aspect of Claim 4, the Examiner states “However, a user can also request that documents be analyzes (sic) based on company and persons names, (which indicates *the use of Boolean words for the search*” (emphasis added by Appellants).

#### **A.4. Claims 7 and 14**

Appellants initially show error in the rejection of Claim 7 for reasons given above with respect to Claim 1 (of which Claim 7 depends upon).

Still further, Claim 7 recites “wherein the pre-selected granularity value corresponds to a root-to-leaf level in the hierarchical data set of identified interests”. In rejecting Claim 7, the Examiner alleges that this claimed feature is taught by *Natasa* at paragraphs [0087-0088]. Appellants urge, and as depicted in the reproduction of these passage above, that these paragraphs describe processing of the retrieved web pages themselves (i.e. the search results), and are not directed to any details with respect a pre-selected granularity value that is associated with extracting keywords from a hierarchical dataset of interests identified by a user, as required by the features of Claim 7 in combination with Claim 1. Therefore, as every element recited in Claim 7 is not identically shown in a single reference, and in particular there is no teaching of a pre-selected granularity value that corresponds to a root-to-leaf level in the hierarchical data set of identified interests, Claim 7 has been erroneously rejected under 35 U.S.C. § 102 (e).

#### **A.5. Claim 19**

Claim 19 stands rejected under 35 U.S.C. § 102(e), and yet such claim was cancelled by Appellants in an amendment dated October 23, 2006.

#### **A.6 Claims 21-23**

Appellants initially show error in the rejection of Claim 21 for reasons given above with respect to Claim 1 (of which Claim 21 depends upon).

Still further, Claim 21 recites “wherein the webpage is a portal page associated with the user and provided by a portal”. As can be seen, Claim 21 is combination with Claim 1 states that the webpage that is delivered and personalized for the user according to the identified interests is a portal page provided by a portal. The Examiner states that this is taught by *Natasa* at paragraph [0062]. Appellants urge that there, *Natasa* states:

“[0062] Users may access documents by directly executing a URL of the desired document via the browser 217 or may follow a hyperlink in the currently viewed



document or may select to access documents from a list of URLs presented to the user by a Web service (Search or others) as a result of the user's request for information.”

As can be seen, this passage makes no mention whatsoever that a personalized web page that is delivered is a portal page provided by a portal. At best, this passage mentions a list of URLs is presented to the user *by a Web Search service*. The cited passage – or for that matter the entire publication – makes no mention whatsoever of any portal or portal page, or the providing of a portal page by a portal. Instead, it describes how a user may access documents using a URL *provided by a web search service*. Therefore, as every element recited in Claim 21 is not identically shown in a single reference, and in particular there is no teaching of wherein the webpage (which is personalized for the user according to the identified interests) is a portal page associated with the user and provided by a portal, Claim 21 has been erroneously rejected under 35 U.S.C. § 102 (e).

## **B. GROUND OF REJECTION 2 (Claims 2, 9 and 16)**

Claims 2, 9 and 16 stand rejected under 35 U.S.C. § 103 as being obvious over *Natasa Milic-Frayling* (Pub. No. US 20060059138) (hereinafter “*Natasa*”) in view of *Serbinis et al.* (Patent No: US 6,584,466) (hereinafter “*Serbinis*”).

### **B.1. Claims 2, 9 and 16**

Appellants initially show error in the rejection of Claim 2 for similar reasons to those given above with respect to Claim 1, and urge that the newly cited *Serbinis* reference does not overcome the teaching deficiencies identified above with respect to the *Natasa* reference.

Still further, Appellants urge that the Examiner has failed to establish the requisite suggestion or motivation in combining the teachings of *Natasa* with *Serbinis*, instead using impermissibly hindsight analysis for such combination. As stated by the Federal Circuit, “virtually all [inventions] are combinations of old elements.” *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698, 218 USPQ 865, 870 (Fed. Cir. 1983); *see also Richdel, Inc. v. Sunspool Corp.*, 714 F.2d 1573, 1579-80, 219 USPQ 8, 12 (Fed. Cir. 1983) (“Most, if not all, inventions are combinations and mostly of old elements.”). Therefore an examiner may often find every element

of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentability." *Sensonics, Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570, 38 USPQ2d 1551, 1554 (Fed. Cir. 1996). To prevent the use of hindsight based on the invention to defeat patentability of the invention, **this court requires the examiner to show a motivation to combine the references that create the case of obviousness** (emphasis added by Appellants). In other words, **the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.** *In re Rouffet*, 149 F.3d 1350, 47 USPQ 2d 1453 (Fed. Cir. 1998) (emphasis added by Appellants). "[w]hen determining the patentability of a claimed invention which combines two known elements, 'the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *See In re Beattie*, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984)).

In making the *Natasa/Serbinis* combination, the Examiner merely states (on page 6 of the present Office Action dated January 25, 2007):

"It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Natas with Serbinis teaches (sic) of storing, retrieving or modifying documents of special interest to user, which could be retrieved as an XML document".

Appellants respectfully submit that 'which *could* be retrieved as an XML document' does not meet the legal requirements, as articulated above, of establishing in the prior art as a whole a suggestion of any desirability, and thus the obviousness, of making the combination. At best, the Examiner's

alleged rationalization for the combination amounts to an assertion of ‘it could have be done’. Therefore, the only reason for making such combination must be coming from Appellants’ own disclosure, which is impermissible hindsight analysis. It is error to reconstruct the patentee’s claimed invention from the prior art by using the patentee’s claims as a “blueprint”. When prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight obtained from the invention itself. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 227 USPQ 543 (Fed. Cir. 1985). Quite simply, the Examiner has failed to meet their burden of proof requirements in justifying a reason for making the combination, instead using impermissible hindsight for such combination. Therefore, it is further urged that Claim 2 has been erroneously rejected using impermissible hindsight analysis.

Still further regarding Claim 2, it should also be noted that the hierarchical data set that comprises an XML document is a *data set of interests identified by a user*. The *Serbinis* passage that is cited as teaching a hierarchical data set (of interests identified by a user ) that comprises an XML document states:

“The services interfaces also permit users to interact with DMS system 17 using client applications specific to the service to be performed. For example, a web browser may be used to make requests to DMS system 17 using HTTP over Secure Sockets Layers (SSL) protocol, and a response may be returned in Hyper Text Markup Language ("HTML"). A word processor application may make a request to DMS system 17 using HTTP over SSL and **a response may be returned in Extensible Markup Language ("XML")**. Each DMS service may respond to requests for data using different formats, e.g., HTML, XML, etc. A DMS service also may respond to requests by structuring the data differently according to a service provider's preferences.”

As can be seen, this described use of XML is with respect to a ‘returned response’, and has nothing to do with a *data set of interests identified by a user*. Rather, this XML usage is with respect to returned responses. Thus, even when the references have been improperly combined using

impermissible hindsight analysis, there are still missing claimed features that a not taught or suggested by the cited references – strongly evidencing non-obviousness of Claim 2. Therefore, the Examiner has failed to properly establish a prima facie showing of obviousness<sup>2</sup>, and accordingly Claim 2 has been erroneously rejected under 35 U.S.C. § 103<sup>3</sup>.

Appellants thus request that the Board reverse the final rejection of all pending claims, due to the above identified erroneous rejection of such claims.

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<sup>2</sup> To establish prima facie obviousness of a claimed invention, **all of the claim limitations** must be taught or suggested by the prior art. MPEP 2143.03. *See also, In re Royka*, 490 F.2d 580 (C.C.P.A. 1974) (emphasis added by Appellants).

<sup>3</sup> If the examiner fails to establish a prima facie case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

## **CLAIMS APPENDIX**

The text of the claims involved in the appeal are:

1. A method of delivering a webpage comprising:  
receiving a hierarchical data set of interests identified by a user;  
storing the hierarchical data set of interests in a database entry associated with the user;  
and  
parsing the hierarchical data set;  
extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value;  
applying extracted keyword values to filter content for delivery to the user; and  
delivering a webpage that is personalized for the user according to the identified interests.
2. The method of claim 1 wherein the hierarchical data set comprises an XML document.
3. The method of claim 1 further comprising:  
pre-populating a Web content search form page using extracted keyword values; and  
returning the Web content search form page to the user.
4. The method of claim 3 further comprising receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.

6. The method of claim 1 wherein, if no keyword attribute is associated with an interest, using a value attribute of the interest as a default keyword.
7. The method of claim 1 wherein the pre-selected granularity value corresponds to a root-to-leaf level in the hierarchical data set of identified interests.
8. A computer program product embodied in a machine-readable medium for delivering a webpage, the computer program produce comprising programming instructions for:
  - receiving a hierarchical data set of interests identified by a user;
  - storing the hierarchical data set of interests in a database entry associated with the user;
  - parsing the hierarchical data set;
  - extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value;
  - applying extracted keyword values to filter content for delivery to a the user; and
  - delivering a webpage that is personalized for the user according to the identified interests.
9. The computer program product of claim 8 wherein the hierarchical data set comprises an XML document.
10. The computer program product of claim 8 further comprising programming instructions for:
  - pre-populating a Web content search form page using extracted keyword values; and
  - returning the Web content search form page to the user..

11. The computer program product of claim 10 further comprising programming instructions for receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.

13. The computer program product of claim 8 wherein, if no keyword attribute is associated with an interest, using a value attribute of the interest as a default keyword.

14. The computer program product of claim 8 wherein the granularity value corresponds to a root-to-leaf level in the hierarchical data set of identified interests.

15. A data processing system for delivering a webpage comprising:  
circuitry operable for receiving a hierarchical data set of interests identified by a user;  
circuitry operable for storing the hierarchical data set of interests in a database entry associated with the user;

circuitry operable for parsing the hierarchical data set;

circuitry operable for extracting one or more keyword attribute values from the hierarchical data set in response to the parsing of the data set and a pre-selected granularity value;

circuitry operable for applying extracted keyword values to filter content for delivery to the user; and

circuitry operable for delivering a webpage that is personalized for the user according to the identified interests.

16. The data processing system of claim 15 wherein the hierarchical data set comprises an XML document.
17. The data processing system of claim 15 further comprising:  
circuitry operable for pre-populating a Web content search form page using extracted keyword values; and  
circuitry operable for returning the Web content search form page to the user.
18. The data processing system of claim 18 further comprising circuitry operable for receiving the Web content search form from the user, wherein the received search form includes one or more pre-populated data, zero or more additional user-supplied search terms and at least one Boolean search indicator for determining the combination of search terms for performing a search.
20. The data processing system of claim 15 wherein, if no keyword attribute is associated with an interest, using a value attribute of the interest as a default keyword.
21. The method of claim 1, wherein the webpage is a portal page associated with the user and provided by a portal.
22. The computer program product of claim 8 wherein the webpage is a portal page associated with the user and provided by a portal.
23. The data processing system of claim 15, wherein the webpage is a portal page associated with the user and provided by a portal.



## **EVIDENCE APPENDIX**

There is no evidence to be presented.

## **RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.